

# Work Order ID 52382

Tuesday, September 22, 2009 11:44:25 AM



Page 1

Item ID: D3936-041 **BK**

Accept



Setup Start



Revision ID: A

Stop



Item Name: Mapbox Assembly

Start Date: 9/23/2009 Start Qty: 4.00



Cust Item ID:

Required Date: 10/9/2009 Req'd Qty: 4.00



Customer:

Reference:

Approvals: Process Plan: R/mf Date: 09-22

Tooling:

Date:

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

D3936	A
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100

0.00



Small Fab

Memo

0.00

Small Fab

Assemble as per dwg

09/10/09 (4) ~~PTO~~

110

0.00



QC

QC5- Inspect part completeness to step on W/O

Memo

0.00

Quality Control

2) 09/10/09

(X4) 4

120

0.00



Powdercoat

Black Sandtex(Ref:4.3.5.7) per QSI005 4.3

M109091

Memo

0.00

Powder Coating

START TIME: 3:15pm  
OVEN TEMPERATURE: 320°C  
FINISH TIME: 3:45pm

all 09/10/13

(X4) 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3936-041 <sup>→ D412-791-043 → 011</sup> PAR #: \_\_\_\_\_ Fault Category: Small Pcs NCR: (Yes) No DQA: / Date: 05-10-20  
 Resolution: re-work Disposition: re-work QA: N/C Closed: / Date: 05-10-20

NCR: 52382		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09/10/08	100	1 rivet was damaged <del>when</del> at the riveting when removed hole was a little <del>big</del> bigger R.C process	<u>/</u> MS/ML	open hole at .128 + countersink & put rivet MS 204 26-4-1 M 15541	<u>/</u> 09/10/08	<u>S</u> 09/10/09	<u>/</u> MS/ML	<u>/</u> 05-10-08

NOTE: Date & initial all entries

**Work Order ID 52382**

Tuesday, September 22, 2009 11:44:26 AM

Page 2

Item ID: D3936-041

Accept

Revision ID: A

Item Name: Mapbox Assembly

Start Date: 9/23/2009 Start Qty: 4.00

Required Date: 10/9/2009 Req'd Qty: 4.00

Reference:

Cust Item ID:

Customer:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

130

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

BX 09-10-14

(4)

140



Small Fab

Memo

Small Fab

INSTALL RUBBER CUSHION AND PLACARD AS PER DWG

0.00

0.00

EP 09/10/14 (4)

150

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

Quality Control

0.00

2802/10/15

(4)

**Work Order ID 52382**

Tuesday, September 22, 2009 11:44:26 AM

Page 3

Item ID: D3936-041

Accept

Revision ID: A

Item Name: Mapbox Assembly



Start Date: 9/23/2009 Start Qty: 4.00

Required Date: 10/9/2009 Req'd Qty: 4.00

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start  
Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location: _____	0.00							
									
Packaging	Memo	0.00							
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
									
QC	Memo	0.00							
Quality Control									

09/10/15

09/10/15

MF  
09-10-15









Tuesday, September 22, 2009 11:44:25 AM

Page 1

[illegible]

**Required Date:** 10/9/2009

**Required Qty: 4.00**

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3936-1RevA 		Manufactured	No			100	Each	0.0000	4.0000			
Sides						B 52173					Ep09/10/07	
D3936-3RevA 		Manufactured	No			100	Each	0.0000	4.0000			
Bottom						B 52174					Ep09/10/07	
D3936-5RevA 		Manufactured	No			100	Each	0.0000	4.0000			
Divider						B 52175					Ep09/10/07	
D3938-3RevB 		Manufactured	No			140	Each	4.0000	4.0000			
Placard											Ep09/10/14	

**Loc Code**

## Main Warehouse

52187

140	Each	0.0000	4.0000
-----	------	--------	--------




13.3

140	Each	0.0000	4.0000
-----	------	--------	--------



41

B48512 

0-14512

4

9509/10/14

9509/10/14

# Picklist Print

Page 2

Tuesday, September 22, 2009 11:44:25 AM

Work Order ID: 52382



Parent Item: D3936-041RevA



Parent Item Name: Mapbox Assembly

Start Date: 9/23/2009

Required Date: 10/9/2009

Comments:

Start Qty: 4.00

Required Qty: 4.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS20426AD3-4  RIVET		Purchased	No			100	Each	8,237.000	224.0000			

*Ep 09/10/09*

Warehouse  
Location

Loc Qty

Loc Code

Main Warehouse

ST

8237

104374

4237

110398

4000

224

MS20426AD3-5

Purchased

No



Rivet

100

Each

15,997.00

32.0000



*Ep 09/10/09*

Warehouse  
Location

Loc Qty

Loc Code

Main Warehouse

ST

15997

4179

4159

4444

5678

4533

6160

32

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY

SUBJECT TO AMENDMENT

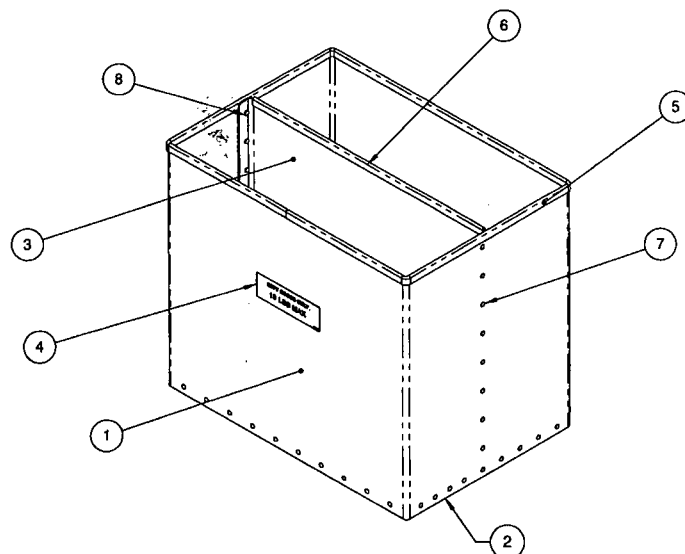
WITHOUT NOTICE  
WORK ORDER

NO. 52382

ITEM NO.	QTY. -041	PART NUMBER	DESCRIPTION
1	1	D3936-1	SIDES
2	1	D3936-3	BOTTOM
3	1	D3936-5	DIVIDER
4	1	D3938-3	PLACARD
5	1	D3941-40	RUBBER CUSHION
6	1	D3941-12	RUBBER CUSHION
7	56	MS20426AD3-4	RIVET
8	8	MS20426AD3-5	RIVET

#### ASSEMBLY INSTRUCTIONS

1. BEND D3936-1/-3/-5 PARTS PER SHEETS 2-7.
2. POSITION D3936-5 DIVIDER IN PLACE INSIDE THE D3936-1 SIDES AND CLECO IN PLACE.
3. POSITION THE D3936-3 BOTTOM IN PLACE AGAINST THE D3936-5 DIVIDER AND INSIDE THE D3936-1 SIDES.
4. TRANSFER DRILL 10X  $\phi 0.098$  (#40 DRILL) HOLES FROM THE D3936-3 BOTTOM TO THE D3936-5 DIVIDER. PLACE CLECOS IN TRANSFER DRILLED HOLES TO MAINTAIN ALIGNMENT AS THEY ARE DRILLED.
5. TRANSFER DRILL 38X  $\phi 0.098$  HOLES FROM D3936-1 SIDES TO D3936-3 BOTTOM. PLACE CLECOS IN TRANSFER DRILLED HOLES TO MAINTAIN ALIGNMENT AS THEY ARE DRILLED.
6. REMOVE ALL CLECOS AND COUNTERSINK 64X EXTERIOR HOLES  $\phi 0.179$  X 100°. DEBURR ALL HOLES IN ALL PARTS.
7. REASSEMBLE PARTS USING CLECOS IN EVERY THIRD HOLE TO MAINTAIN ALIGNMENT.
8. RIVET D3936-1 SIDE TO D3936-5 DIVIDER USING MS20426AD3 RIVETS. INSTALL MS20426AD3 RIVETS RANDOMLY THROUGHOUT ASSEMBLY SO THAT ALL PARTS ARE DRAWN TOGETHER EVENLY.
9. RIVET D3936-5 DIVIDER TO D3936-3 BOTTOM USING MS20426AD3 RIVETS. INSTALL MS20426AD3 RIVETS RANDOMLY THROUGHOUT ASSEMBLY SO THAT ALL PARTS ARE DRAWN TOGETHER EVENLY.
10. RIVET D3936-3 BOTTOM TO D3936-1 SIDE USING MS20426AD3 RIVETS. INSTALL MS20426AD3 RIVETS RANDOMLY THROUGHOUT ASSEMBLY SO THAT ALL PARTS ARE DRAWN TOGETHER EVENLY.
11. POWDER COAT ASSEMBLY PER NOTE 2.
12. TEST FIT RUBBER CUSHION TO TOP EDGE OF MAPBOX. TRIM AS REQUIRED FOR PROPER FIT.
13. REMOVE RUBBER CUSHION.
14. APPLY SMALL BEAD OF SILICONE/ADHESIVE TO TOP EDGE OF MAPBOX.
15. SLIDE RUBBER CUSHION OVER EDGE AND PRESS INTO SILICONE/ADHESIVE.
16. WIPE OFF ANY EXCESS SILICONE/ADHESIVE BEFORE IT DRIES/CURES.
17. APPLY D3938-3 PLACARD AS SHOWN.
18. ALLOW SEALANT/ADHESIVE TO CURE/DRY 24 HRS BEFORE SHIPPING PART.



**D3936-041 MAPBOX ASSEMBLY**

#### NOTES:

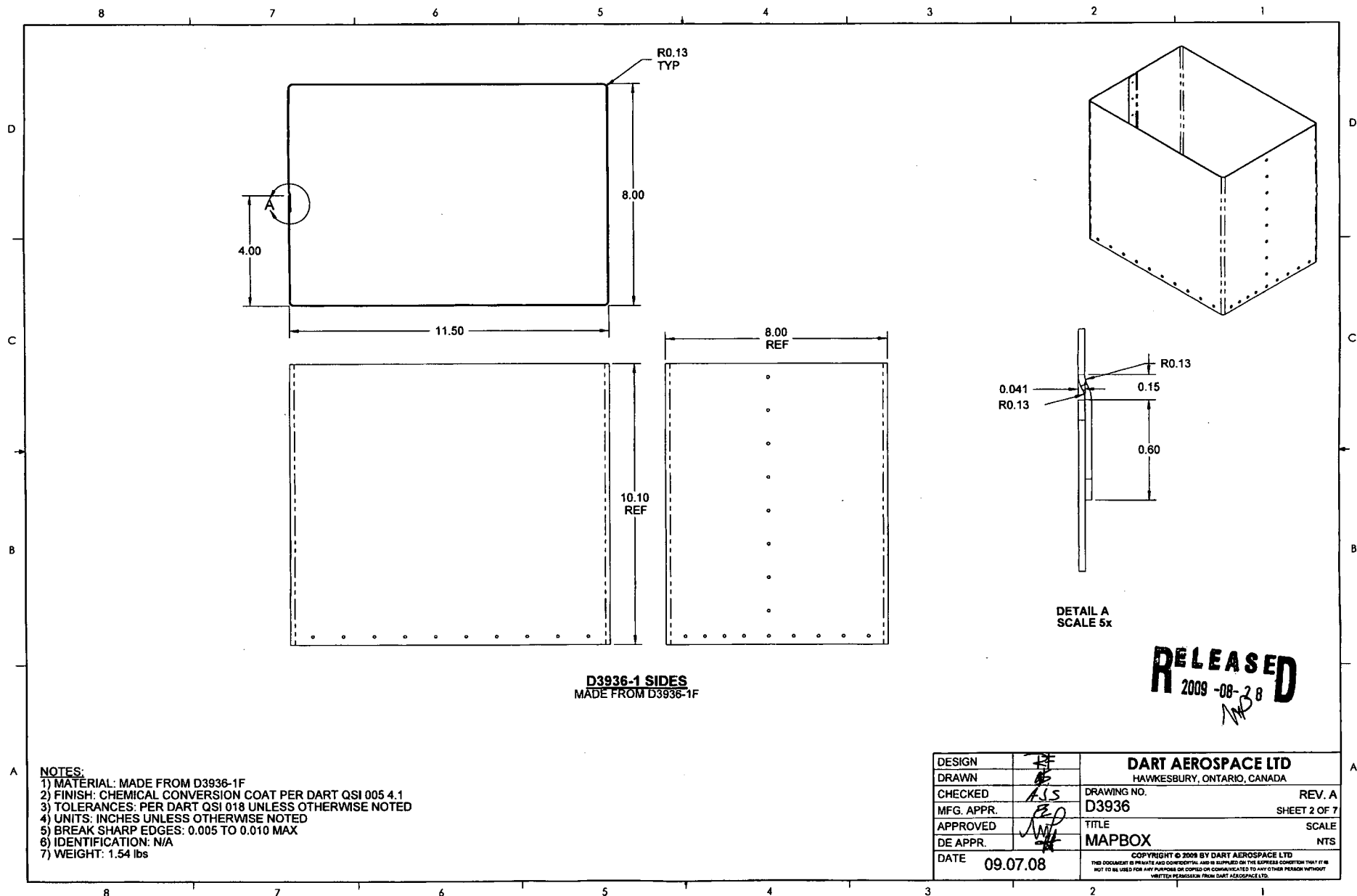
- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "BLACK SANDTEX" (4.3.5.7) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3936-041" AND B/N USING A WHITE FINE POINT PAINT MARKER
- 7) WEIGHT: 2.54 lbs

**RELEASED**  
2009-08-28  
MD

A	NEW ISSUE	09.07.08
REV.	DESCRIPTION	BY DATE
DESIGN	JS	
DRAWN	JS	
CHECKED	ALS	
MFG. APPR.	JS	
APPROVED	MD	
DE APPR.	MD	
DATE	09.07.08	

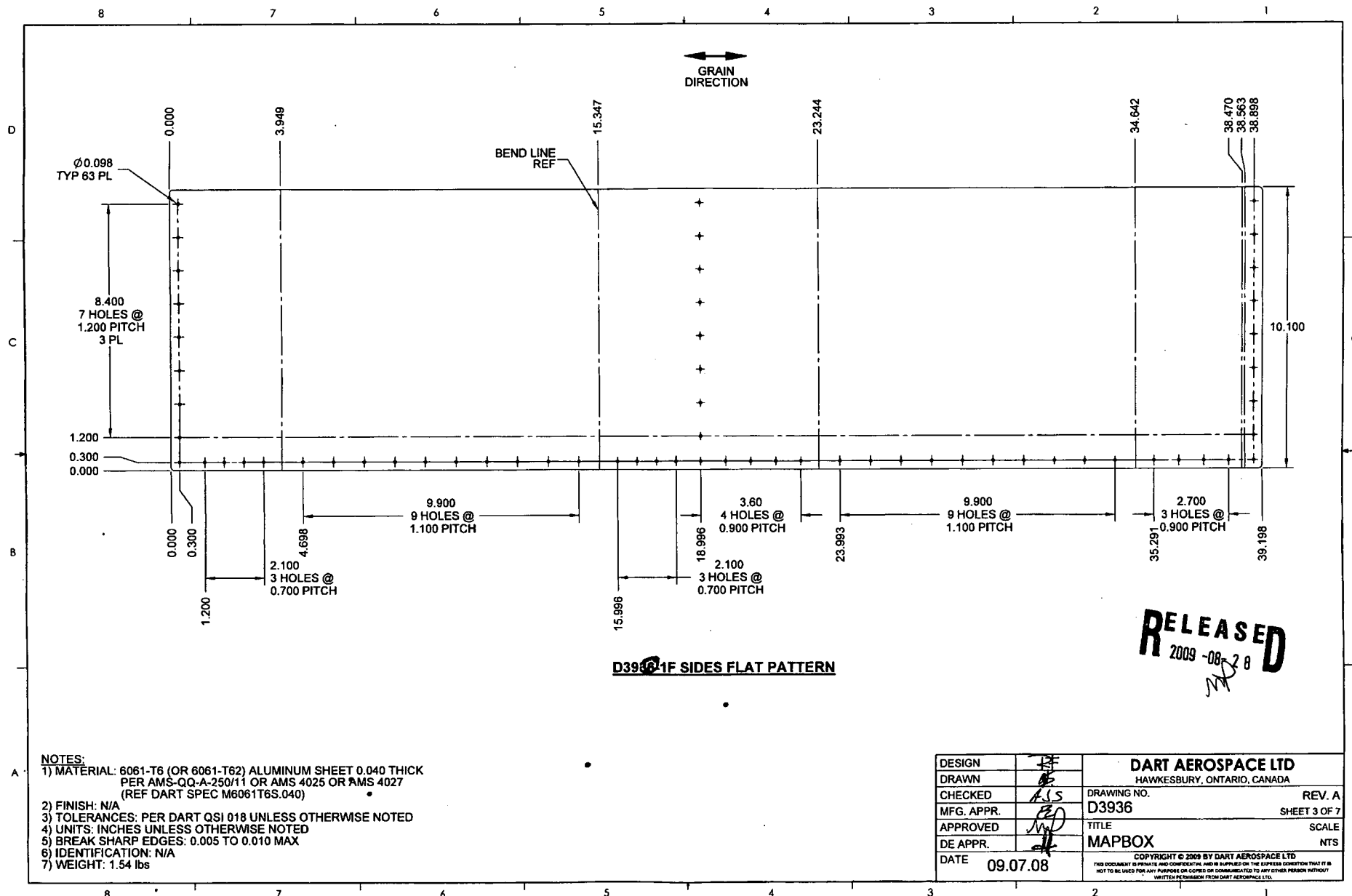
<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. <b>D3936</b>	REV. A
TITLE <b>MAPBOX</b>	SHEET 1 OF 7
SCALE NTS	
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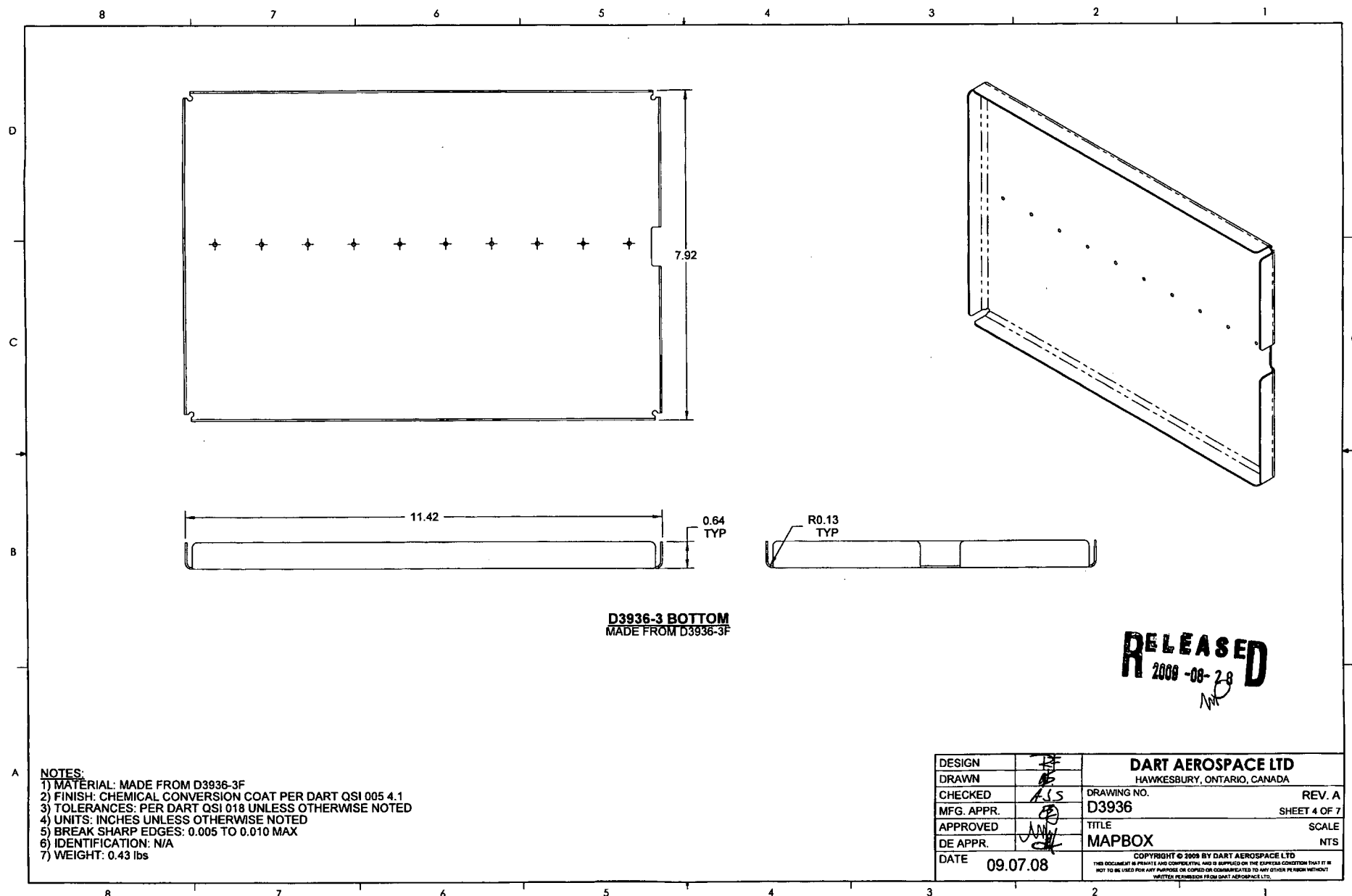




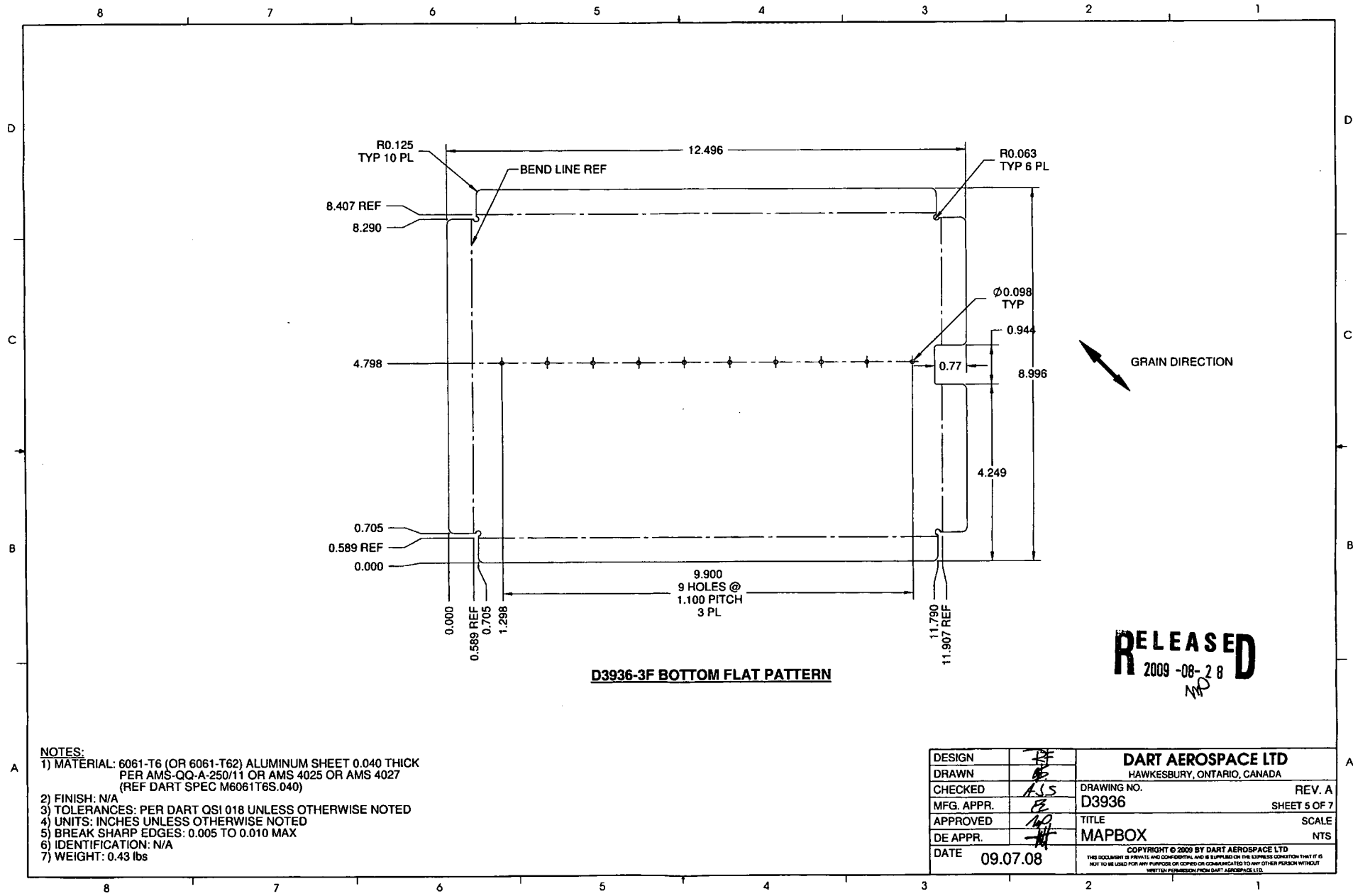
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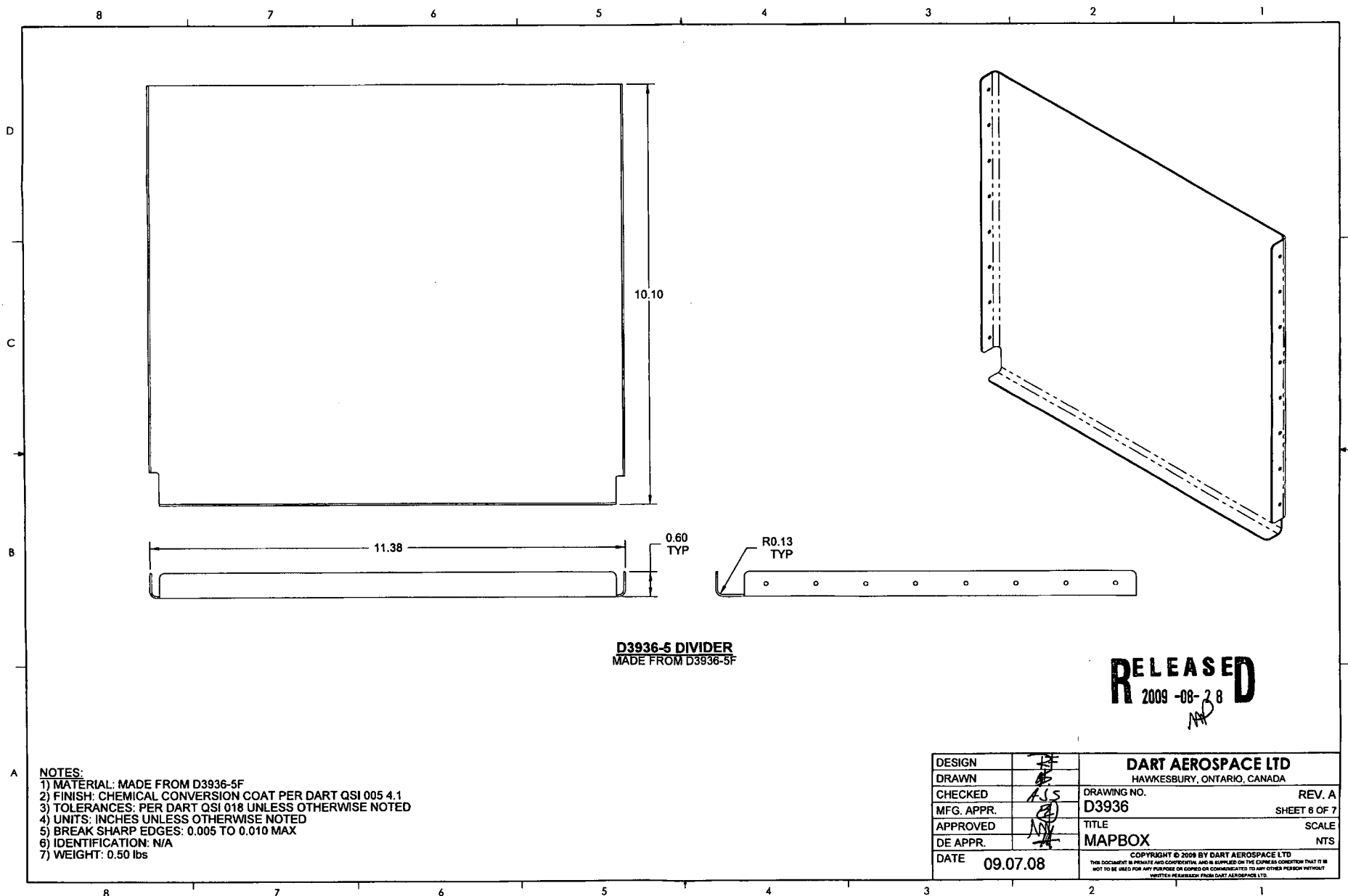


**RELEASED**  
2009-08-28  
MS

- NOTES:**
- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET 0.040 THICK  
PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027  
(REF DART SPEC M6061T6S.040)
  - 2) FINISH: N/A
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.43 lbs

DESIGN	3F	<b>DART AEROSPACE LTD</b>	
DRAWN	BE	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AS	DRAWING NO.	REV. A
MFG. APPR.	BE	D3936	SHEET 5 OF 7
APPROVED	AS	TITLE	SCALE
DE APPR.	AS	MAPBOX	NTS
DATE	09.07.08	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
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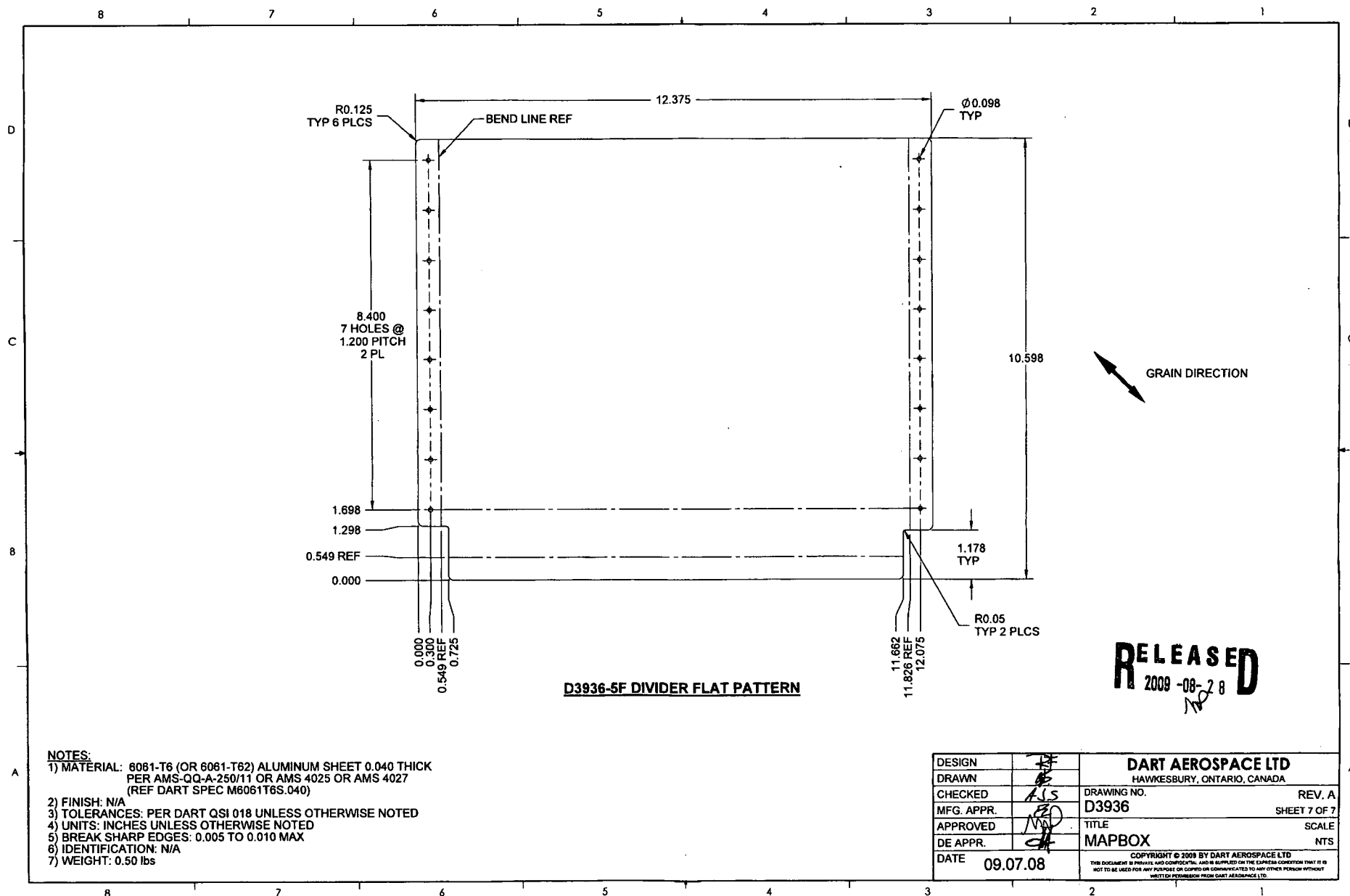
52382



**NOTES:**

- 1) MATERIAL: MADE FROM D3936-5F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.50 lbs

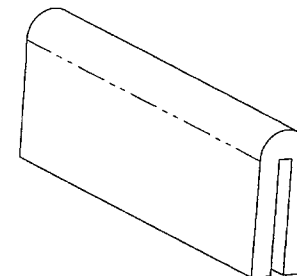
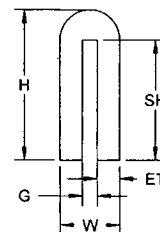
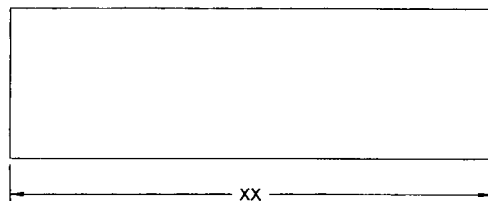
52382



52382

# **SPECIFICATION CONTROL DRAWING**

REFERENCE ONLY



**D3941-XX RUBBER CUSHION**  
(XX = LENGTH OF RUBBER CUSHION IN INCHES)

DART PART NUMBER	LENGTH "XX"	MATERIAL	HARDNESS	SUPPLIER	SUPPLIER PART NUMBER	OVERALL HEIGHT "H"	SLOT HEIGHT "SH"	EDGE THICKNESS "ET"	GAP WIDTH "G"	OVERALL WIDTH "W"	WEIGHT
D3941-12	12	BUTADIENE STYRENE	DUROMETER 70	SPAENAUER	RW-102	0.313	0.25	0.047	0.031	0.125	0.01 LBS
D3941-40	40	BUTADIENE STYRENE	DUROMETER 70	SPAENAUER	RW-102	0.313	0.25	0.047	0.031	0.125	0.03 LBS

**RELEASED**  
2009-08-20

REFERENCE ONLY

- NOTES:
- 1) MATERIAL: N/A
  - 2) FINISH: N/A
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: N/A
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: SEE TABLE

A	NEW ISSUE	BY	09.05.04
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.05.04		

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D3941** REV. A  
SHEET 1 OF 1

TITLE **RUBBER CUSHION** SCALE NTS

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